B. In the Claims

Please cancel claims 8 and 34 without prejudice. Please amend claims 1, 4, 9 and 10 and add new claim 35, as indicated. Upon entry of the amendment, the status of the claims will be as follows:

1. (Currently amended) A method of producing full-length coding sequences, said method comprising:

(a) synthesizing first strand cDNA using isolated full-length mRNA from a population of cells as a template, thereby forming first strand cDNA/mRNA hybrid(s);

(b) denaturing the first strand cDNA/mRNA hybrid(s);

(c) attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase to the 3' end of the first strand cDNA; and

(d) producing a full-length double-stranded cDNA by synthesizing second strand cDNA using the tagged first strand cDNA produced in step (c).

2. (Original) A method according to claim 1 wherein the mRNA is isolated employing an affinity purification material.

3. (Original) A method according to claim 2 wherein the affinity purification material comprises one or more cap-binding proteins bound to a solid surface.

4. (Currently amended) A method according to claim 3 wherein the cap-binding protein(s) are selected from the group consisting of eukaryotic initiation factor (EIF) 4E ~~eIF4E~~, eIF4F, eIF4G, nuclear cap binding protein ~~nCBP~~, and eIF4E:eIF4G fusion protein.

5. (Original) A method according to claim 2 wherein the mRNA to be isolated comprises a biotinylated cap structure.

6. (Original) A method according to claim 5 wherein the affinity purification material is a streptavidin or avidin-complexed solid support.

7. (Original) A method according to claim 1 wherein the mRNA is de-capped and de-phosphorylated after isolation.

8. (Canceled)

9. (Currently amended) A method according to claim 1 ~~claim 8~~ wherein the tag sequence further comprises a recognition site for a site-specific restriction endonuclease.

10. (Currently amended) A method according to claim 1 wherein the tag sequence is attached by a site-specific recombinase ~~capable of recognizing and acting~~ which recognizes and acts on single stranded DNA.

11. (Original) A method according to claim 10 wherein the site-specific recombinase is *E. coli* topoisomerase III.

12. (Original) A method according to claim 1 further comprising amplifying the cDNA during or after step (d).

13. (Original) A method according to claim 12 further comprising inserting the amplified cDNA into an expression vector.

14. (Original) A method according to claim 1 further comprising treating the first strand cDNA/mRNA hybrid(s) formed in step (a) with a substance that degrades single stranded RNA; and isolating the undegraded hybrid(s) with an affinity purification material having affinity for capped mRNA prior to performing step (b).

15. (Original) A method according to claim 14 wherein the substance is RNAse I.

16. (Original) A method according to claim 14 wherein the affinity purification material comprises one or more cap-binding proteins bound to a solid support.

17. (Original) A method according to claim 14 wherein the mRNA component of the cDNA/mRNA hybrid comprises a biotinylated cap structure.

18. (Original) A method according to claim 17 wherein the affinity purification material is a streptavidin or avidin-complexed solid support.

19. (Original) A method according to claim 14 further comprising inserting the double stranded cDNA resulting from step (d) into an expression vector.

20. (Original) An isolated full-length coding sequence prepared according to the method of claim 1.

21. (Original) An expression vector comprising an isolated full-length coding sequence prepared according to the method of claim 1.

22. (Original) An expression vector according to claim 21 comprising one or more elements selected from: a promoter-enhancer, a selection marker encoding sequence, an origin of replication, an epitope-tag encoding sequence or an affinity purification-tag encoding sequence.

23. (Original) An expression vector according to claim 22 wherein the promoter-enhancer is the T7 promoter, gal1 promoter, metallothionein promoter, AraC promoter, or CMV promoter-enhancer.

24. (Original) An expression vector according to claim 22 wherein the selection marker encoding sequence encodes a protein which imparts antibiotic resistance to cells.

25. (Original) An expression vector according to claim 22 wherein the epitope-tag sequence encodes V5, the peptide Phe-His-His-Thr-Thr (SEQ ID NO:2), hemaglutinin, or glutathione-S-transferase.

26. (Original) An expression vector according to claim 22 wherein the affinity purification-tag sequence encodes a polyamino acid tag or a polypeptide.

27. (Original) An expression vector according to claim 26 wherein said polyamino acid tag is polyhistidine.

28. (Original) An expression vector according to claim 26 wherein said polypeptide is a chitin binding domain or glutathione-S-transferase.

29. (Original) An expression vector according to claim 26 wherein said polypeptide encoding sequence includes an intein encoding sequence.

30. (Original) An expression vector according to claim 21 wherein the expression vector is a eukaryotic expression vector or a prokaryotic expression vector.

31. (Original) An expression vector according to claim 30 wherein the eukaryotic expression vector is pYES2, pMT, pIND, or pcDNA3.1.

32. (Original) A method of obtaining full-length coding sequences comprising:

(a) contacting full-length mRNA, isolated from a population of cells by employing an affinity purification material, with reverse transcriptase and thereby synthesizing first strand cDNA and forming first strand cDNA/mRNA hybrids;

(b) treating the first strand cDNA/mRNA hybrids with a substance that degrades single stranded RNA;

(c) isolating undegraded hybrid(s) from degraded hybrids employing an affinity purification material having affinity for capped mRNA;

(d) denaturing the isolated cDNA/mRNA hybrids obtained from step (c) thereby producing single stranded cDNA and single stranded mRNA;

(e) attaching a non-native tag sequence to the single-stranded cDNA, wherein the tag sequence comprises a site-specific recombination sequence and is attached by *E. coli* topoisomerase III; and

(f) synthesizing second strand cDNA using the tagged cDNA as a template and/or amplifying the cDNA, wherein the amplification primers comprise an anti-coding sequence of the tag sequence (5') and oligo-dT (3').

33. (Original) A method according to claim 32 further comprising inserting the cDNA obtained in step (f) into and expression vector.

34. (Canceled)

35. (New) A method according to claim 10 wherein the site-specific recombinase is a type I topoisomerase.